Dr. Magnus presents a chart for the use of physicians and instructors, showing the main points with regard to the motion of the eyes that one ought to retain. The main laws of motion of Donders, Helmholtz, Listing, etc., are given; then a cut illustrating the origin of the motor nerves of the eye. This is followed by a table giving the origin, course, insertion, axis of rotation, etc., for each muscle of the eye. The second part of the chart explains very clearly the effect of paralysis of each of the muscles; how such paralysis limits motion of the eye; what position the eye assumes; whether double images arise, and how they are placed; and so on. The chart shows careful preparation, and will doubtless be widely used.

The Journal of Morphology. Ed. by C. O. Whitman, with the co-operation of Edward Phelps Allis, Jun. Vol. I., No. 1. Sept., 1887. Boston, Ginn & Co. 8°.

The new zoölogical periodical, the first number of which has been so long expected, has at last made its appearance in the shape of a thick and handsome volume of more than two hundred pages, issued from the well-known press of Messrs. Ginn & Co. of Boston. It has been delayed almost unpardonably long, and yet its make-up and the character of its contents compel us to forget the delay, and confess that it was well worth waiting for. The plates alone would make the journal unique among American periodicals devoted to the subject; for they are mostly from the hands of Werner and Winter, the Frankfort (Germany) lithographers, whose names alone are ample guaranty of excellence. In brief, the journal appears to us admirable in almost every particular. The paper is good; the press-work is well done; the minor details of arrangement of footnotes, titles, headings, etc., give evidence of care and forethought.

In this periodical we have a substantial token of the progress of two distinct undertakings of which all American scientists ought to be proud. The first is that of Dr. Whitman, the editor, whose hope and struggle for many months have been to set going in the right way a zoölogical periodical that shall worthily represent American morphologists before the world, and be a suitable outlet for our strong and increasing zoölogical literature. Professor Whitman has certainly succeeded in making a good start.

A word is due also to the publishers, Messrs. Ginn & Co., for their courage in undertaking such a periodical, which can never be expected to be a financial success, as the demand must always be extremely limited. The difficulty of establishing such a journal will be the better understood when we consider that the proceedings of societies, supported by large endowments, meet with practically no sale, but are distributed throughout the world by exchange, and furnish a very excellent means for the placing on record of such papers as are given in this magazine.

The other undertaking is that of Edward Phelps Allis, Jun., of Milwaukee, with whose co-operation the journal is edited by Dr. Whitman. Mr. Allis first formed, and then put into active operation, the idea of a private biological laboratory of research. For this he was fortunate to secure Dr. Whitman as director, and to it the name of the 'Lake Laboratory' has been given. Besides the director, Mr. Allis has added to his laboratory Dr. William Patten as assistant, and it is understood that Mr. Allis is himself at work upon important investigations.

NOTES AND NEWS.

In September a school of Oriental languages was opened at Berlin, the object of which is to give merchants and civil officers an opportunity to learn the languages of Asia and Africa. The staff of the school consists of two teachers of the Arabian language, while Persian, Chinese, Suaheli, and Herero have one teacher each. These have studied the languages they teach in the country where it is spoken, and they are assisted by natives. This school will undoubtedly prove of great value to the commerce of Germany with the countries of Asia and Africa. The merchant or consular official who understands and speaks the language of the country in which he lives and works will have a great advantage over competitors who have to make use of the service of interpreters. Formerly students had the opportunity of studying Oriental languages at German universities, but there they were taught from an exclusively scientific point of view; and it is well known that a language learned in this way, though its grammar may be well mastered, is of no practical value to the student, particularly where the difference between the written and spoken languages is great, and where the dialects are numerous. In the new school the languages are taught as living languages, and this gives the institute its principal importance.

— The semi-annual session of the National Academy of Sciences will be held at Columbia College, Nov. 8, at noon, and continue for three or four days.

— The question of teaching physiology and hygiene to elementary classes in the public schools is one that is far from a successful solution. With a criminal rashness, legislatures have been induced to prescribe alcohol-teaching as a requirement, and the result has been to create noxious temperance-tracts with a smattering of physiology attached, instead of scientific text-books. A very great improvement in this direction is a recently issued primer of health lessons by Dr. Jerome Walker. Around the main facts of physiology, the author has woven an attractive text, fully and well illustrated, and has given the subject that kind of interest which healthy children appreciate. He has very much reduced the space usually allotted to alcohol and narcotics, but it may be questioned whether the reduction is sufficient. A few very objectionable passages (considering the age of the children to whom the book is addressed) still remain. On the whole, Dr. Walker has set an example in the right direction, and the instruction to teachers is not the least valuable chapter in the book.

— One of the subjects discussed at the annual meeting of the French Association for the Advancement of Science, which has just been held at Toulouse, was the project for making a maritime canal between Bordeaux and Narbonne. The different phases of this project, which was first mooted twenty years ago, were passed in review by M. Wickersheimer, deputy for one of the departments through which the canal will pass. The latest project was prepared this summer by a company which has been formed for the purpose of making the preliminary survey; and according to this scheme, the canal, which would be about three hundred and thirty miles in length from sea to sea, would start from the western side of Bordeaux, and follow the left bank of the Garonne for a distance of fifty miles, crossing that river at Castel-Sarrasin by a *pont-canal* (or aqueduct), and follow the right bank of the river as far as Toulouse, where a large port would be created. From Toulouse to the Mediterranean seaboard at Narbonne, the maritime canal would be quite independent of the railway from Bordeaux to Cette, but it would twice cross the Canal du Midi. The curves of the canal would be of the same radius as those in the Suez Canal; that is to say, not less than 6,000 feet, and there would be 38 locks, the fall of which would range from 20 feet to 30 feet. The depth would be about 24 feet, but if the minister of marine should determine to make use of it for the first-class ironclads of the French navy, contrary to what was originally determined, the company will be prepared to make it three feet deeper. It is estimated that the mean speed of vessels passing through the canal will be seven miles an hour, and they would be drawn by locomotives running along a line of rails placed on the banks, a force of from 1,000 to 1,200 horse-power being required to produce this rate of speed. The canal is to be lighted by electricity, the electric light being generated upon the engines used for the traction of the vessels. The total cost is estimated at £130,000,000, or less than half of the estimate originally prepared. The distance saved for vessels coming from the western ports of France into the Mediterranean would be 680 miles.

— It is noted in the *Journal of the Society of Arts*, London, that while the consumption of the other dietetic articles used for beverages — tea, coffee, and chiccory — show a decline last year, cocoa is marked by a considerable increase. This is remarkable, since for about four years, from 1875 to 1879, it remained pretty stationary at about 10,000,000 pounds, but after 1880 it began to make steady progress, advancing from 10,500,000 pounds in that year to over 15,000,000 pounds last year. Of powdered cocoa and chocolate England received 1,332,000 pounds, chiefly from Holland. She